

Real Estate Emerging Markets Briefing

Prepared for

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1 Executive Summary

- Emerging markets are defined as low or middle per capita income economies. They are characterized by lower transparency, market depth, market regulation and operational efficiency as compared to high-income countries. Broad-based restrictions of foreign direct investments may be encountered.
- In the past, emerging stock and real estate market returns outpaced the world's established stock and real estate market returns which was attributed to higher relative GDP growth. This trend is expected to continue. Real estate markets, in particular, received and continue to receive additional tailwinds from growing urban and middle class populations, as well as from structural shifts from agrarian to manufacturing and service driven societies.
- Many risks associated with investing in emerging markets have been decreasing over time. Market transparency, as well as the structural and legal environments, has improved. Governments have progressed in the continuing battle against corruption. However, exchange rate volatility has risen with inflation, highlighting the importance of appropriate hedging strategies of foreign investors to reduce their exposure to the risks of inflation-induced currency depreciation.
- Beyond their appealing risk/return profile, on a standalone basis, emerging market investments are attractive since they have proven to be valuable diversifiers in a portfolio context.
- The successful implementation of any investment strategy that includes emerging markets depends on whether the investor achieves an appropriate level of diversification, supported by manager selection and careful asset allocation by country.

2 Definition of Emerging Markets

The term “emerging market” implies an economy and its attendant equity and debt markets that are in transition – increasing in size, activity and/or level of sophistication. Emerging markets are typically defined by parameters that attempt to assess their relative economic stability, social and political stability, corporate governance practices, market access and investibility, and quality of markets (regulatory environment, information flows, trading and settlement infrastructure).

The number of emerging market indices (equity and debt) has grown considerably since the establishment of an emerging market database and benchmark by the International Finance Corporation (IFC) in the 1970s. Today, emerging market indices are produced by several organizations, including FTSE, Standard & Poor's, MSCI, and Russell, CitiBank, Lehman Brothers and emerging market equity indices are available by region, style, sector and market capitalization. Each benchmark provider uses different methodologies to create their indices, and these methodologies are not static. However, in general, a market is considered “emerging” if it meets at least one of several general criteria:

- It is located in a **low or middle-income economy** as measured by The World Bank's Gross National Income (GNI) per capita. The World Bank's GNI per capita figures are a widely accepted indicator of overall economic development, and it has been observed that political, social and economic stability tend to increase with higher levels of general economic wealth.
- It **does not exhibit financial depth**; the ratio of the country's investable market capitalization to its GDP is low. Emerging markets typically have a larger portion of non-investable holdings or parts of companies that are inaccessible to foreign institutional investors due to foreign investment limits.
- There exist **broad-based discriminatory controls** for non-domiciled investors. Stock markets that maintain or introduce investment restrictions, such as foreign investment limits, capital controls, extensive government involvement with listed companies, and other legislated restraints on market activity, particularly those pertaining to foreign investors, are generally considered emerging markets.
- It is characterized by a **lack of transparency, depth, market regulation, and operational efficiency**. Emerging markets generally lack rigorous market supervision and enforcement, corporate governance practices, minority shareholder rights, transparency and disclosure, and a high level of accounting standards.

Emerging markets are distinct from “frontier markets” which are smaller and more illiquid than emerging markets. While frontier markets may be open to foreign investment under certain conditions, they are not widely considered investable. Most organizations that produce emerging market indices also produce frontier market indices, but these are generally calculated on a monthly basis rather than a daily basis due to the limit of adequate and reliable information. Examples of frontier countries include Bulgaria, Croatia, and Romania in Europe; Botswana, Cote d’Ivoire, Kenya and Lebanon in the Middle East and Africa; Ecuador and Jamaica in Latin America and the Caribbean; and Bangladesh and Vietnam in Asia.

3 Which Markets are Emerging Markets Today?

The emerging markets equity asset class encompasses a broad sweep of economies from across almost all continents. The specific list of markets designated as emerging varies among the organizations that have developed an emerging markets index. CalPERS' Emerging Equity Markets Principles limits international investment managers to investments in emerging markets as defined by the FTSE Emerging Market indices. As shown in Figure 1 below, today, FTSE classifies 23 countries as Advanced or Secondary Emerging.

Figure 1 FTSE Emerging Markets

<i>Advanced Emerging</i>	<i>Secondary Emerging</i>
Brazil	Argentina
Hungary*	Chile
Mexico	China
Poland*	Colombia
South Africa	Czech Republic
South Korea	Egypt
Taiwan	India
	Indonesia
	Malaysia
	Morocco
	Pakistan
	Peru
	Philippines
	Russia
	Thailand
	Turkey

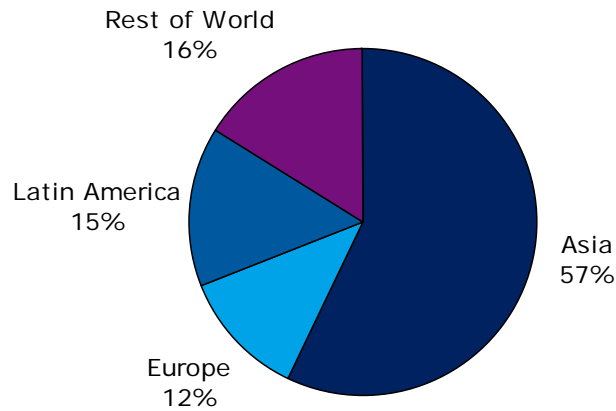
Source: FTSE. Data as of May 2008. *Implemented in September 2008

As of December 31, 2007, FTSE's All Emerging Market index represents approximately 1,700 securities with a total market capitalization of over US\$2,763B. FTSE's All Emerging Markets index includes countries like China and India which may appear as sophisticated as North America and Europe when looking at capital formation and fixed asset investment. However, these countries are included as emerging markets due to significant offsetting factors, such as a low reliability of contracts, the scarce disposable income of households and the uneven distribution of wealth. Similarly, South Africa is considered to have a mature regulatory and stock market infrastructure, but is classified as an Advanced Emerging market due to lower GNI per capita figures.

According to Russell Global Indexes data, emerging markets companies increasingly account for a bigger share of the global large-cap universe: the float-adjusted market capitalization of emerging markets as a proportion of global markets increased from 3.5 percent in 2001 to 10.2 percent in 2007.

As shown in Figure 2 below, Asia dominates today's emerging markets, with 57 percent of the total market capitalization. Market capitalization is calculated by multiplying the total number of shares outstanding in a market by the current market price of each share.

Figure 2 Regional emerging stock market sizes by USD market capitalization

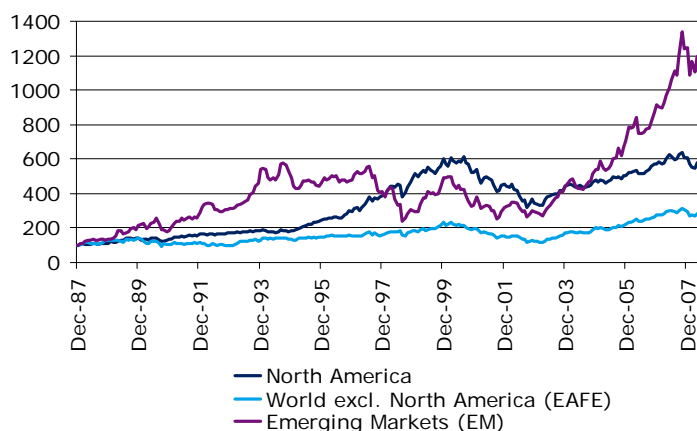


Source: Bloomberg. Data as of year end 2007

4 History of Emerging Markets Performance

As shown in Figure 3 below, strong performance by emerging market equities in the early 1990s was fully retraced in the latter half of the 1990s due to a series of market crises, including the devaluation of the Thai Baht in 1997, the Russian crisis in 1998, and the implementation of Malaysian capital controls in 1999, among others.

Figure 3 Total return emerging vs. developed stock markets 1987-2007 in USD



Source: Bloomberg

Despite the many financial crises experienced by emerging market economies over the past years, analysts believe that most emerging markets economies are now fundamentally more stable. Indeed, over the past five years, emerging markets have significantly outperformed developed countries, adding significant returns and diversification benefits to investors with an emerging markets allocation.

Several factors contribute to this turnaround. First, emerging markets continue to evolve and are more often characterized by higher credit ratings, stable yet flexible currencies, and dedicated investment capital. High growth rates encourage emerging market governments toward economic orthodoxy, which in turn, results in improved fiscal balances and debt levels.

Figure 4 Emerging market key economic figures

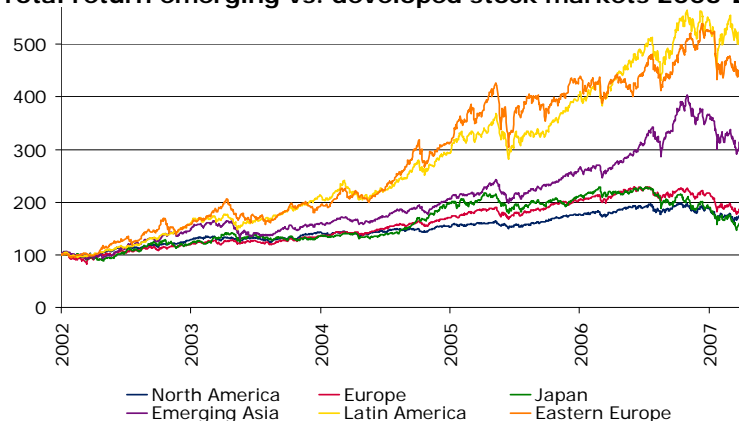
	1998	2005
Current account (% of GDP)	-0.8%	4.1%
GDP growth	2.4%	6.7%
Fiscal deficit (% of GDP)	-4.6%	-0.7%
Inflation	11.8%	5.0%
External debt ¹ (% of GDP)	49.0%	37.0%
Average credit rating*	BB-	BBB-
% investment grade debt	4.0%	38.0%

Source: Lazard Asset Management. Based on sample of 33 emerging market countries. *External debt

Another factor contributing to the recent out performance of emerging markets is improving company fundamentals, which have benefited from more transparent and consistent accounting practices, more rigorous corporate governance, and a general increased focus of management teams on profitability and returns, particularly in Latin America.

Over the past five years, emerging markets have achieved average annual returns of 34.1 percent, compared to 15.2 percent for developed markets and 8.0 percent for the US.² Figure 5 below shows the growth of a dollar in these various markets over the past five years.

Figure 5 Total return emerging vs. developed stock markets 2003-2008 in USD



Source: MSCI, Bloomberg

Individual emerging markets can be extremely volatile. However, taken together as a whole, the volatility in the returns from emerging markets look more like the volatility in returns of many developed markets. As shown in the table below, emerging markets in aggregate had a correlation of 0.63 with the US over the past five years, similar to that of Canada (0.65), Australia (0.62), and Singapore (0.61). The returns from emerging markets also exhibit low correlations with developed markets, and thus can meaningfully improve diversification in a portfolio.

Figure 6 Emerging stock market returns, standard deviations and correlation to S&P 500

<i>Region</i>	<i>Return p.a. in %</i>	<i>Standard deviation p.a. in %</i>	<i>Correlation to S&P 500</i>
Latin America	45.2	20.7	0.68
Asia	32.0	17.0	0.61
Europe	44.9	25.2	0.38
Rest of World	31.3	16.2	0.32
Total Emerging Markets	34.3	15.4	0.64
USA (S&P 500)	12.5	8.6	1.00
Global (S&P/Citigroup BMI)	18.6	9.7	0.93

Source: S&P. Data as of 12/02-12/07

² As represented by the Russell Emerging Markets Index, Russell Developed Markets Index, and the Russell 3000.

During the first quarter of 2008, emerging markets followed developed markets lower on concern about the impact of the credit crunch on the global economy. While stock prices in emerging markets will likely suffer, if the US experiences a prolonged economic slowdown or recession, there is general agreement among industry analysts that emerging markets will be less affected than previously by developed world problems thanks to growing inter-emerging markets trade and investment, increased private consumption and strong infrastructure investment.

5 Why Invest in Emerging Markets Now?

Investors generally consider investing in emerging markets for two reasons: return potential and diversification. In the late 1980s, international investors were attracted to emerging markets based on the reasoning that these markets offered potentially superior returns – at least over the long-term - because emerging market countries have the largest percentage of the world's population and abundant natural resources but relatively low Gross Domestic Product (GDP). As a result, there is the potential for high growth from a relatively low base.

These core attributes still underpin the rationale for investing in emerging markets. At year-end 2006, emerging markets represented approximately 84 percent of the world's population, but only 23 percent of world GNI, and 28 percent of total world market capitalization. GDP growth in emerging markets has clearly been much stronger than in developed markets over the past ten and twenty years and equity returns, as measured by MSCI Developed World and Emerging Market Indices in US dollars, have been significantly higher despite the occasional sharp setback.

Figure 7 Return and growth in developed and emerging stock markets

	<i>Developed markets</i>		<i>Emerging markets</i>	
	<i>Return in %</i>	<i>Growth in %</i>	<i>Return in %</i>	<i>Growth in %</i>
20 years	9.3	2.9	16.3	4.2
10 years	7.5	2.9	14.5	4.1

Source: MSCI. Data as of year end 2007

History demonstrates, and forecasts indicate, that future economic growth will be unevenly distributed across countries and regions. Emerging markets economies should continue to experience higher economic growth rates than developed market peers, as a result of both higher population growth and increases in productivity. Emerging markets should therefore continue to outperform. One caveat: because the relationship between growth and performance does not hold at the individual country level, investors need to diversify across emerging markets to pick up the 'growth' effect.

Investing in emerging markets today is also supported by global financial and socio-economic trends. World financial markets are growing more and more integrated, and emerging markets represent an ever-increasing portion of the world market capitalization. Emerging markets have expanded significantly both by the number of countries and in the number of securities listed over the last decade. Transparency- the degree of visibility into these economies, their stock markets, and the individual securities - is increasing. The "contagion factor", or spillover of one country's crisis into other emerging markets in the region, appears to be receding. Lower contagion among emerging markets is due in part to the improved knowledge about the underlying economic fundamentals of individual countries and markets that has come with increased openness and transparency.

While individual emerging markets can still be extremely volatile, reduced contagion, combined with increasingly sophisticated emerging markets investors who evaluate each market on its own merits, has resulted in a significant decline in volatility levels in the asset class. Currently, volatility levels are lower than those of major equity asset classes in developed markets.

Additionally, positive fundamentals and improving qualitative attributes of emerging markets support investment in these markets, including current lower valuation levels, continued structural and economic reforms, more disciplined capital allocation and improvement in capital returns. Finally, emerging countries represent a true global investment opportunity due to their powerful population demographics and growing middle classes.

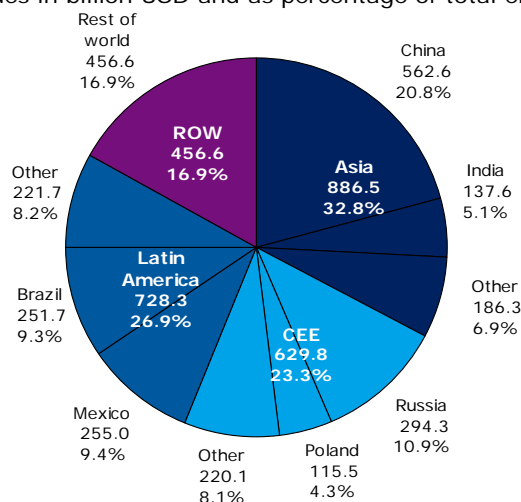
6 Emerging Real Estate Market Universe

So far, the universe has been defined and the attractiveness of emerging stock markets has been discussed in terms of both return potential and diversification benefits. The subsequent sections shall analyze emerging real estate markets and their return potential, risk profile and correlation properties.

The emerging market real estate universe is as broad and diverse as is the universe of emerging countries. Approximately 15 percent of global real estate values are estimated to be located in the more recently industrialized countries³; 33 percent thereof is located in Asia, and approximately 25 percent each in Central and Eastern Europe⁴ and in Latin America. The remainder is spread over the Middle East and Africa, as shown in Figure 8.

Figure 8 Emerging markets investable real estate universe 2008

(Investable real estate values in billion USD and as percentage of total emerging real estate values)



Source: CBRE. Data as of 2008

The real estate markets in these regions literally only just began emerging during the last decade; the breadth and depth of certain subsections of the market are therefore limited.

Public real estate investment trust (REITs) markets are still in their infancy. Some countries start to be investable through offshore REITs which are listed on an established stock exchange but predominantly invest in an emerging market (e.g. Hong Kong listed REITs which hold up to 90 percent Chinese property). However, the liquidity of these vehicles still remains at levels generally below the minimum requirements of institutional investors. Similarly, while Core and Value-added type investments exist, these markets have yet to develop significantly. They will become more mature once the first and second generations of Opportunity funds exit the substantial amount of high quality developments they currently

³ CBRE

⁴ Does not include Turkey

control. Because a majority of Opportunistic construction activity was started during the last five years, it is expected that a large and increasing number of high quality prime assets will hit the market by the beginning of the next decade. This will enable the rise of emerging market Core funds and REITs, as the investment opportunities they seek will become accessible.

Unfortunately, there are no true benchmarks for emerging markets real estate yet⁵ such that it is not possible to directly measure the diversification benefits of emerging market real estate in a real estate portfolio in analogy to the analyses performed in Section 3, Figure 6. However, one can approach the diversification argument indirectly:

First, diversification by strategy is commendable. The correlations between the private real estate strategies Core, Value-add and Opportunistic are low. This implies that there are diversification benefits from a multi-strategy approach to real estate investing as compared to a Core-only approach. Since none of the real estate strategies exhibit strong correlations to world stocks and bonds, increased diversification within the real estate portion of a portfolio does not come at the cost of reduced diversification in the even broader context of a mixed asset portfolio. The correlation figures are given below in Figure 9.

Figure 9 Correlations between US private real estate strategies, world stocks and world bonds

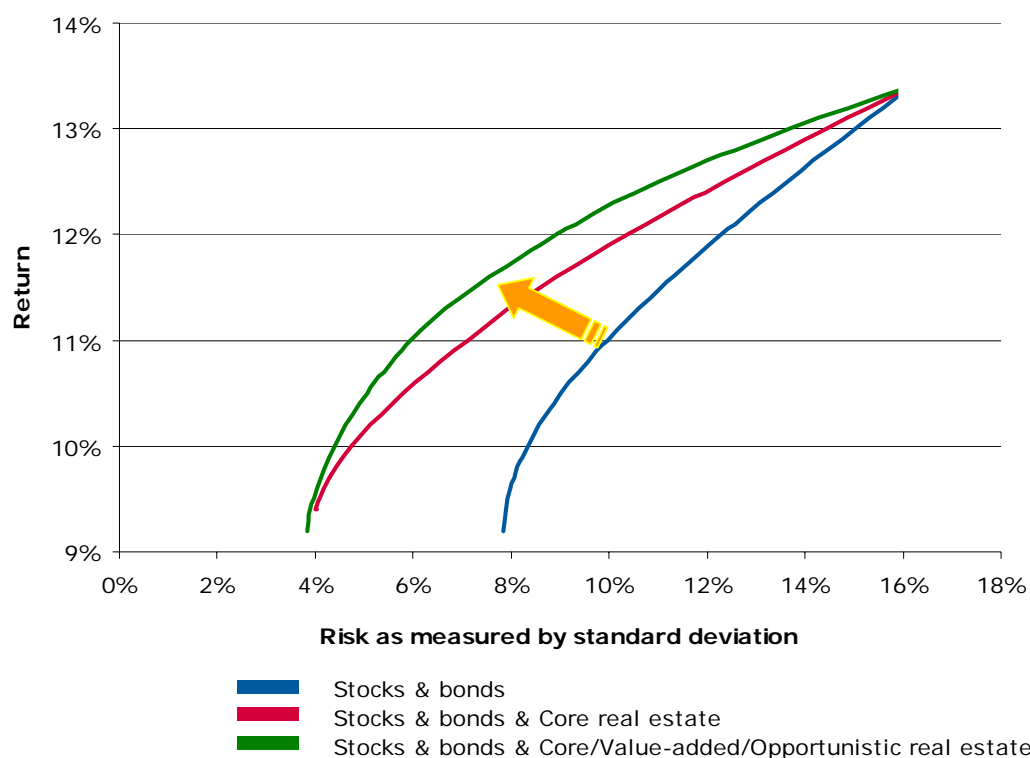
	<i>Core</i>	<i>Value-added</i>	<i>Opportunistic</i>	<i>Stocks - World</i>	<i>Bonds - World</i>
Core	1				
Value-added	0.22	1			
Opportunistic	0.53	-0.02	1		
Stocks - World	0.18	0.03	0.66	1	
Bonds - World	-0.33	0.46	-0.09	0.25	1

Source: Partners Group, NCREIF, Bloomberg. Computations over total available data from 1978 to 2007

How exactly do these correlations translate into diversification benefits of a multi-strategy approach to real estate investing in a portfolio context? Figure 10 on the following page performs an efficient frontier analysis starting with a mixed asset portfolio of stocks and bonds which is expanded first through US Core real estate alone, then further through US Value-added and Opportunistic strategies. The result is that any target return can be achieved at a significantly lower level of risk when not only stocks and bonds, but also different private real estate strategies can be invested in. Graphically, this outcome is shown through the shift of the frontier upwards and to the left.

⁵ There are some REIT indices for individual emerging countries such as China. However, these indices are not (yet) representative since their data histories are short. Furthermore, close to inception these indices typically represent only a small number of trusts such that the correlation properties of the asset class are not well represented because of a significant presence of idiosyncratic risk in the indices.

Figure 10 Shift in efficient frontier of a basic mixed asset portfolio through inclusion of US Core, as well as US Core, Value-added and Opportunistic real estate strategies



Source: NCREIF, Partners Group, Bloomberg. Core: NCREIF NPI. Stocks: MSCI World; bonds: Citigroup World Government Bond Index. Computations over total available data from 1978 to 2007

Since emerging market investments are almost exclusively found in the Opportunistic space, the correlations of emerging market real estate to Core real estate and to other asset classes should not exceed the respective correlations of the Opportunistic strategy. Ultimately, emerging market investments should thus enhance the risk/ return characteristics of an otherwise Core-only real estate portfolio as well as of a mixed asset portfolio.

Second, one should expect that there are benefits from regional diversification through the inclusion of emerging markets. Unfortunately, these benefits cannot be measured directly since no benchmarks for emerging market Opportunistic strategies are available. But one can argue that the benefits of diversification by region should be comparable across asset classes. Figure 6 in Section 3 illustrated the compellingly low correlations observed between stock markets in emerging and developed regions.

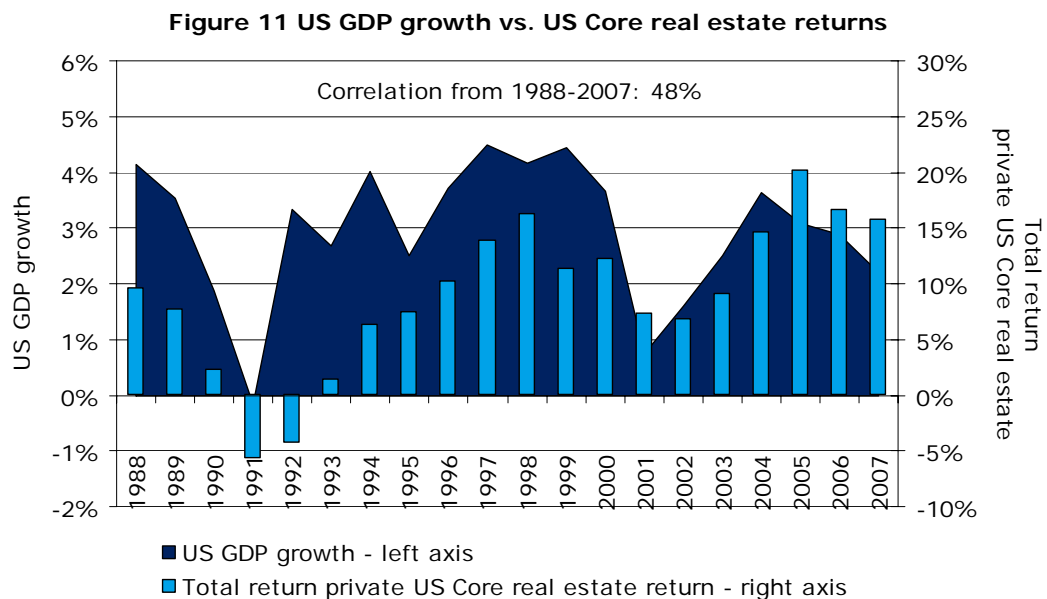
By inference, the diversification benefits of emerging markets real estate investments are assumed to be compelling within both a real estate and a mixed asset portfolio.

7 Drivers of Emerging Real Estate Markets

The following sections identify the major drivers of the growth and performance for real estate investments in emerging markets.

7.1 Macroeconomic Environment

A key indicator for trends in rental growth and ultimately for real estate market returns is GDP growth. In a quantitative analysis, GDP growth correlates by as much as 40 to 60 percent to real estate performance as shown in Figure 11 for the case of the US:

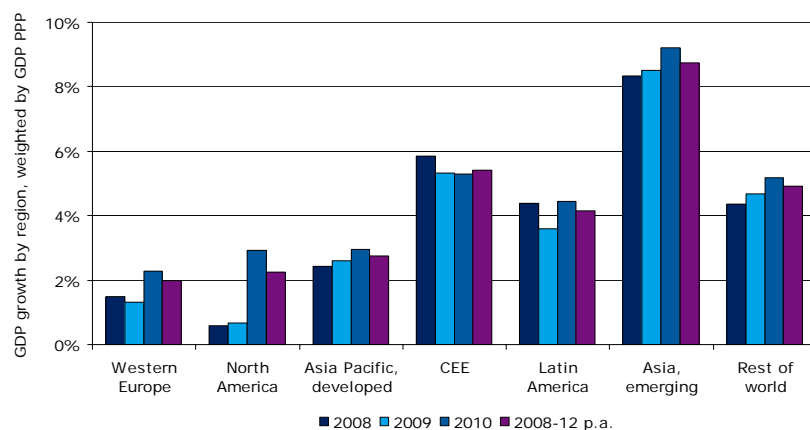


Source: NCREIF, IMF World Economic Outlook April 2008

Beyond that, overall economic growth forms the long-term threshold for growth in any given asset class, including real estate. As Figure 12 on the following page illustrates, emerging markets are expected to outpace the developed world's GDP growth in the near future.

The corollary is that since GDP is stronger in emerging economies, the emerging real estate market returns should similarly outpace the developed markets' real estate returns.

Figure 12 GDP growth outlook by major regions



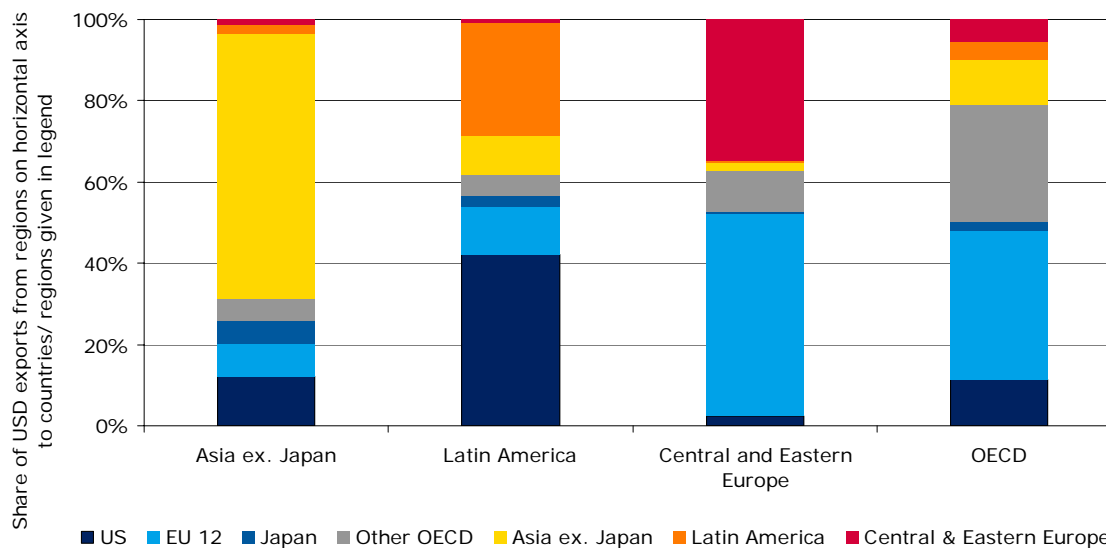
Source: IMF World Economic Outlook April 2008

While GDP expansion has recently been more resilient in emerging economies, they may not yet be completely “decoupled” from the industrialized economies of North America and Europe.

However, thanks to elevated and growing importance of trading connections among emerging markets and thus lesser exposure to the developed markets, the emerging economies are poised to weather the current slowdown, if not recession, in the United States better than other areas of the globe. This finding is illustrated in Figure 13.

Figure 13 Emerging markets exhibit stronger trading relationships to the world’s high growth areas than the developed markets

(Total export volumes from major regions (horizontal axis) to major countries/ regions in percent)

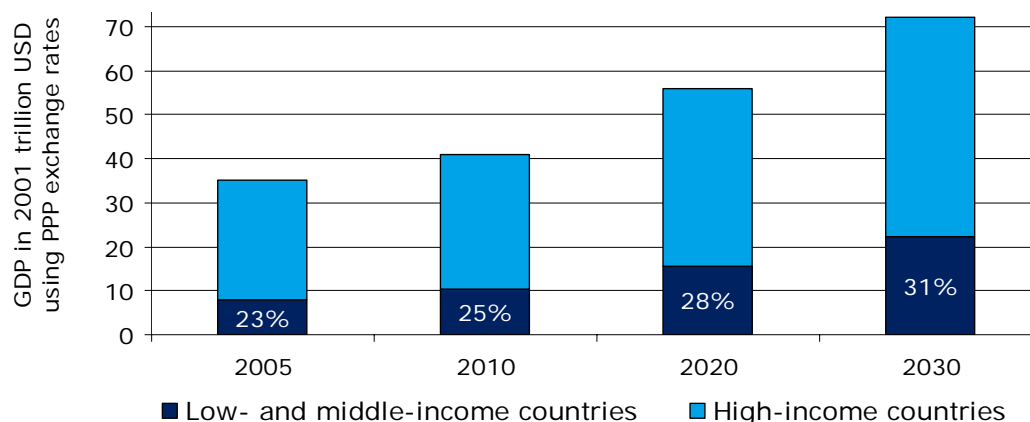


Source: Goldman Sachs, Global Economic Analyst July/ August 2008. Data as of 2007

In fact, according to IMF estimates, the change in growth from the two-year period of 2006/7 to 2008/9 averages between minus one and minus two percentage points across the globe; however, the impact will be relatively less acute in emerging economies not only due to the strong interregional trade relationships but also because growth is declining from a higher base. The current economic conditions in North America and Europe are forecasted to have a contained impact on the emerging economies where growth has recently been strongest, notably the BRIC countries (Brazil, Russia, India and China). Even with the recent slowdown factored in, emerging economies are projected to grow above historical averages in the short to medium term, 7.1 percent for 2008 to 2012 versus 5.2 percent over the past two decades, according to the IMF. Consequently, emerging markets will continue to increase their share of world GDP relative to the developed, high-income countries. Figure 14 below shows the latest World Bank projection.

Figure 14 Emerging-country share of the global economy will rise in coming years

(World GDP PPP in trillion USD and as percentage of total)

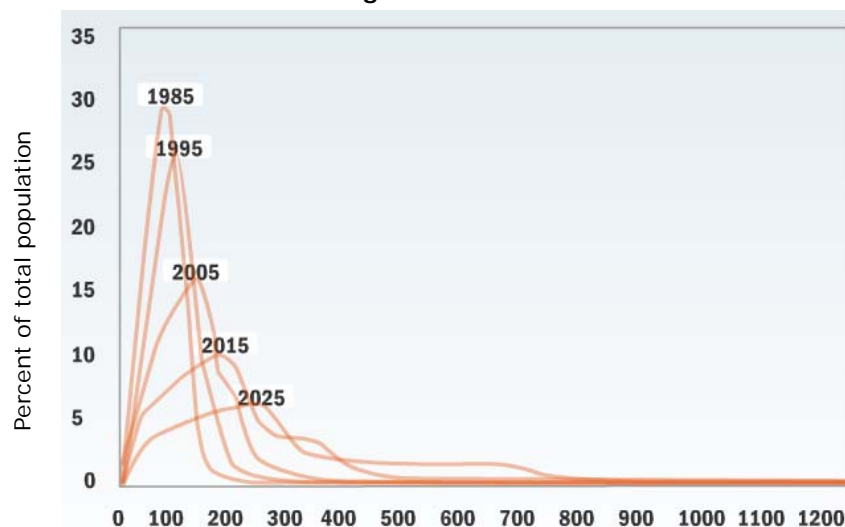


Source: World Bank, Managing the Next Wave of Globalization

Of equal importance to aggregate GDP expansion is the growth in disposable personal income, both as measured in absolute terms and as measured through the percentage of households exceeding a certain threshold income which is high enough to make these families units likely to increase the demand for commercial real estate. For instance, a household in rural India with an annual income of less than \$5,000 is not likely to influence demand for commercial office, retail or apartment space. However, an Indian household in an urban area with more than \$30,000 of disposable income will likely be a consumer of higher quality real estate space of some form.

While in developed economies the share of middle- and high-income households, often also referred to as “middle class”, within the population is stable over time, this number is increasing in most emerging economies. Figure 15 on the following page illustrates the case of India, where the income distribution curve has flattened significantly over the last two decades and is forecasted to continue to flatten over the coming years.

Figure 15 Trend towards broadening household income distribution in India

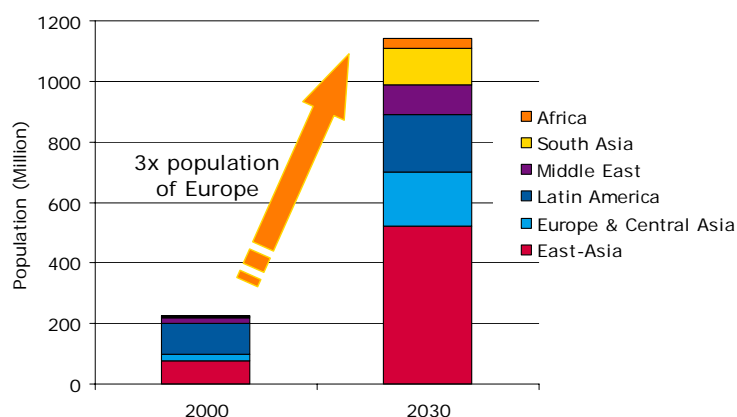


Distribution of Indian household income p.a., in thousand Indian Rupees as of base year 2000

Source: McKinsey Global Institute

A recent study by the World Bank estimates a quintupling of emerging market middle classes from 2000 to 2030. This projected growth would equal as much as three times the current total population of Western Europe, as shown in Figure 16.

Figure 16 Growth of the global middle class in the emerging countries

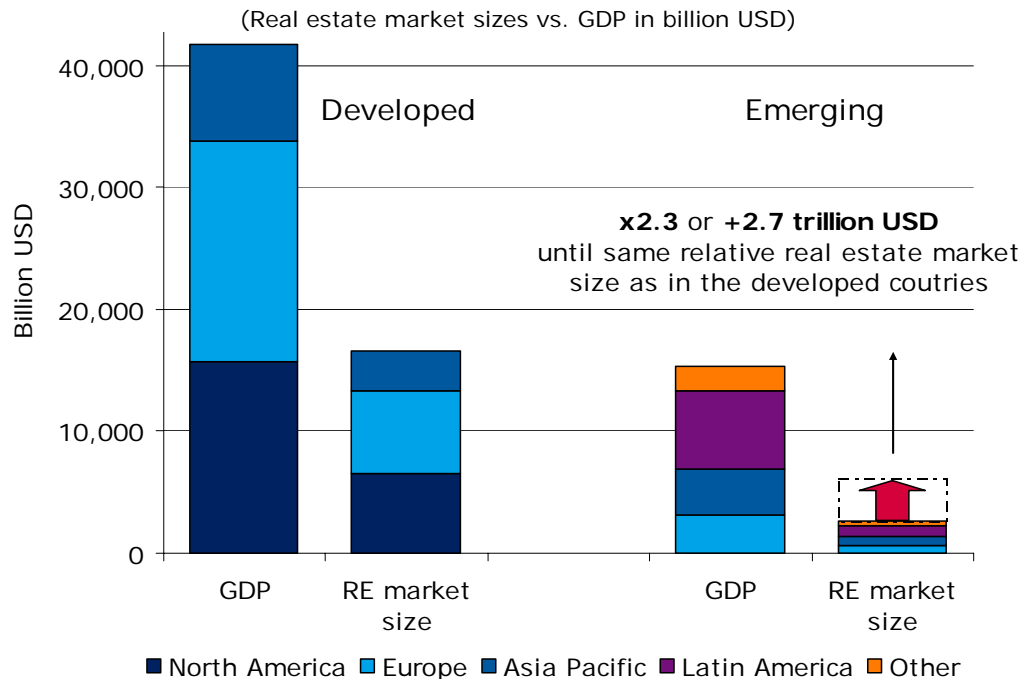


Source: World Bank, Managing the Next Wave of Globalization

Furthermore, the investable real estate market, defined as institutional quality commercial real estate, is consistently smaller in emerging markets, in relation to overall GDP, than in developed markets with long established property markets. This level of structural development is reflected in the consumption basket of a country. Basic goods such as food have a larger share in emerging economies, while more sophisticated goods, such as health care, telecommunication and commercial real estate, tend to have a lower share. The corollary is that personal income growth in the emerging economies should lead to disproportionately higher growth in demand for commercial real estate. Figure 17 below

details how, in aggregate, this shift in the consumption baskets of emerging economies is projected to create substantial additional demand for high quality real estate.

Figure 17 Per capita income growth in emerging markets will leverage demand for RE



Source: IMF World Economic Outlook April 2008, CBRE

As an estimate of current real estate market sizes within a country, a number of different institutions⁶ use the following top-down formula:

$$\text{Real estate market size [USD]} = 45\% \times \text{GDP [USD]}$$

in countries with per capita GDP exceeding USD 20,000 (developed economies)

and

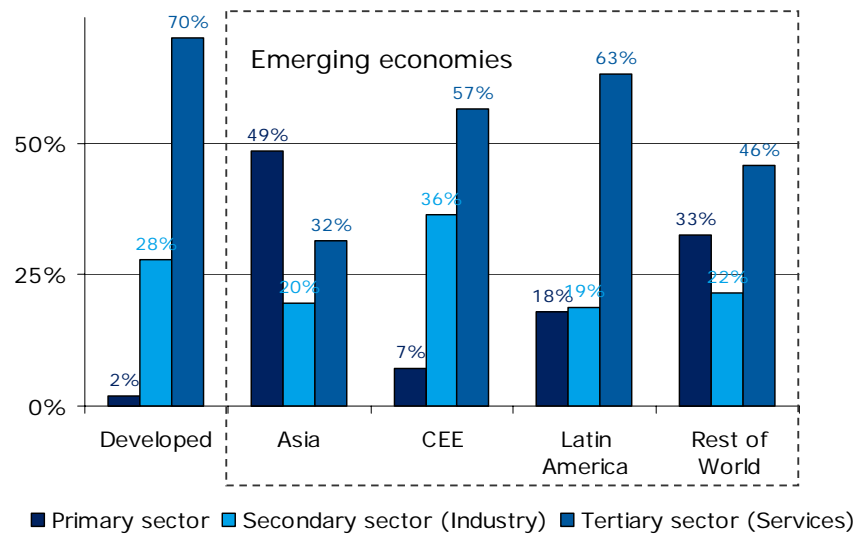
$$\text{Real estate market size [USD]} = 45\% \times \text{GDP} \times (\text{Per capita GDP}/20,000)^{1/3} \text{ [USD]}$$

in countries with per capita GDP below USD 20,000 (emerging economies)

Fueled by a shift from strongly agrarian economies to service or manufacturing economies, particularly strong growth from current to projected real estate demand is expected in the emerging countries of Asia, as illustrated in Figure 18 below.

⁶ Pramerica, CBRE

Figure 18 Emerging service sectors poised for rapid expansion
(Sectoral exposures by world regions)

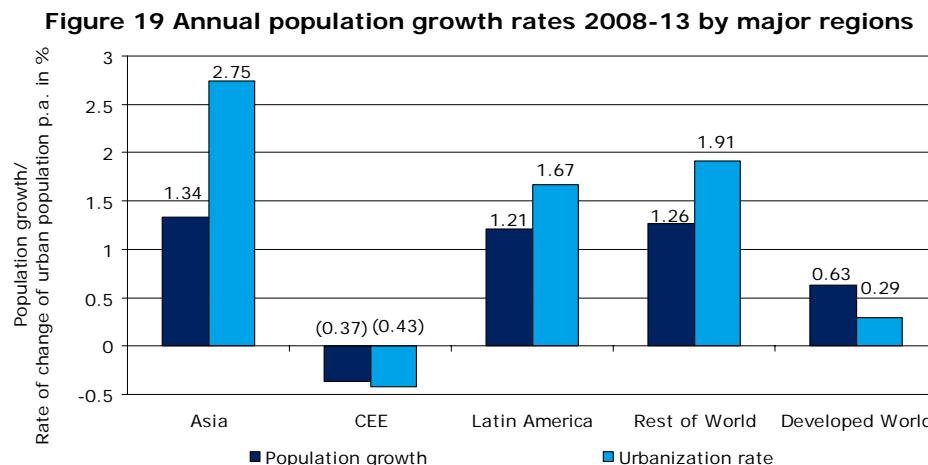


Source: CIA World Factbook

In summary, the underlying macroeconomic fundamentals of emerging economies look to support real estate investments opportunities.

7.2 Demographics

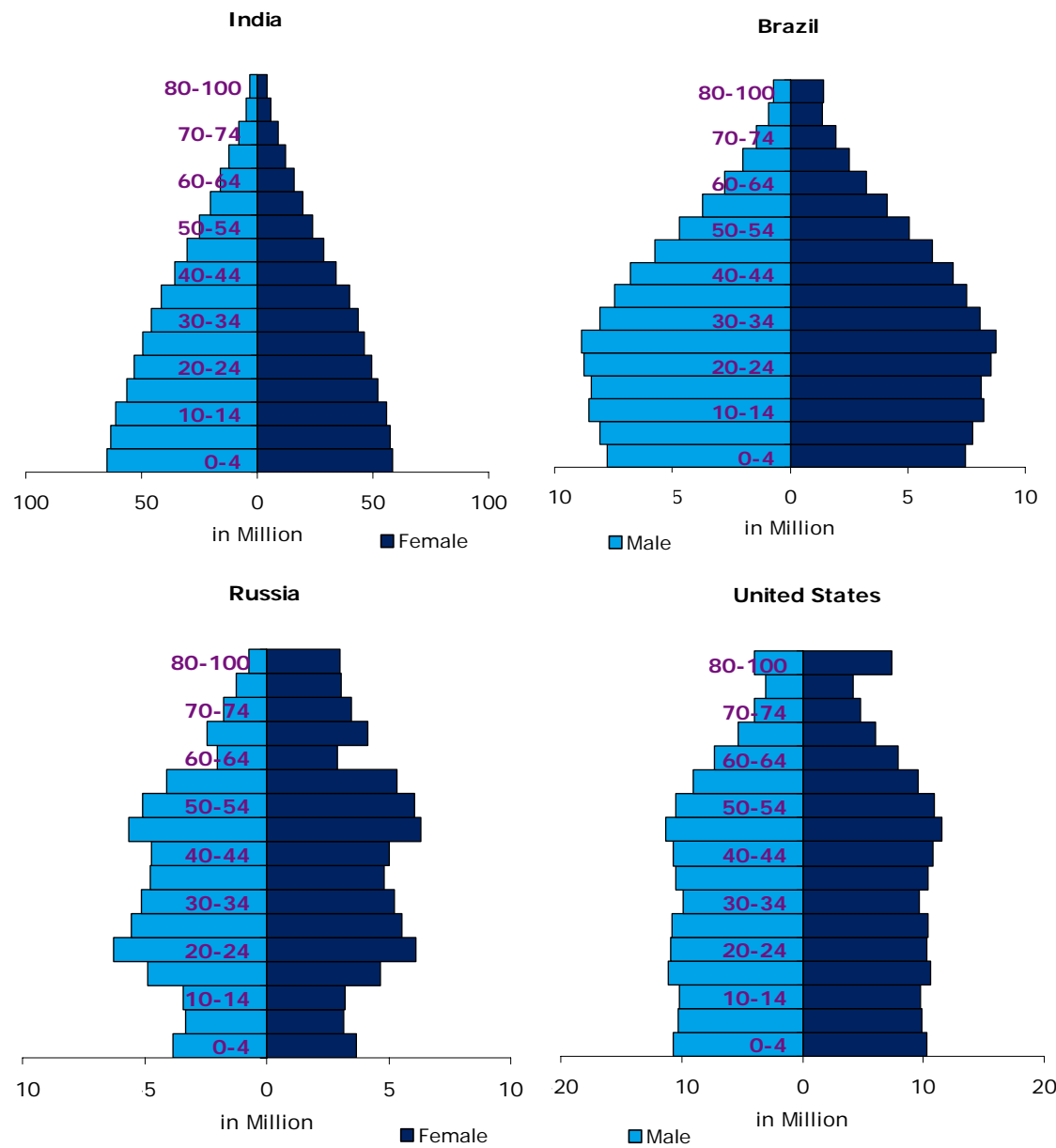
While a macroeconomic survey can provide a perspective into the overall health of an economy, demographic – in particular urbanization - trends point to where density figures can substantiate investments in commercial real estate. Figure 19 illustrates these trends below. With the exception of Central and Eastern Europe (CEE), all emerging regions largely outpace the developed regions in terms of population growth and urbanization rates.



Emerging Asian economies should continue to experience the strongest rise in the need for real estate due to rapidly growing urban workforces. Similarly, urbanization trends in Latin America and the “Rest of World” pool – comprised primarily of South Africa and the Middle Eastern countries – indicate growth in their respective investable real estate market size. CEE markets are an exception due to their shrinking and aging populations.

A second indicator for the growing need for space across property types is the age cohorts. The higher the recent growth in population or the percentage share of the younger population of the population as a whole, the higher the future demand for commercial real estate is likely to be as the new workforce entrants reach working age. Figure 20 on the following page exhibits, for comparative purposes, the age distributions of India, Brazil, Russia and the United States.

Figure 20 Population pyramids in selected emerging economies and in the United States

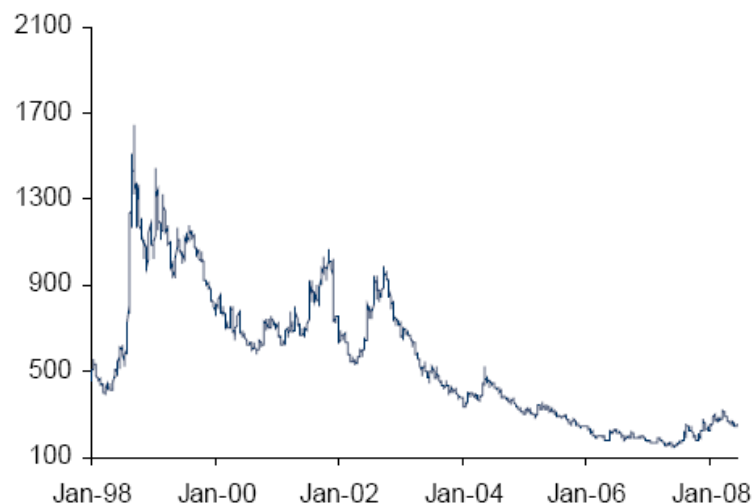


Source: US Census Bureau

8 Country Risks

Despite a slight widening since the beginning of the credit turbulences in July 2007, global emerging market bond spreads detail a reduction in the levels of credit and country risk financial markets have priced into emerging market bonds, as shown below in Figure 21.

Figure 21 Perceived riskiness of the emerging markets is declining
(Emerging market bond spreads to US treasuries)

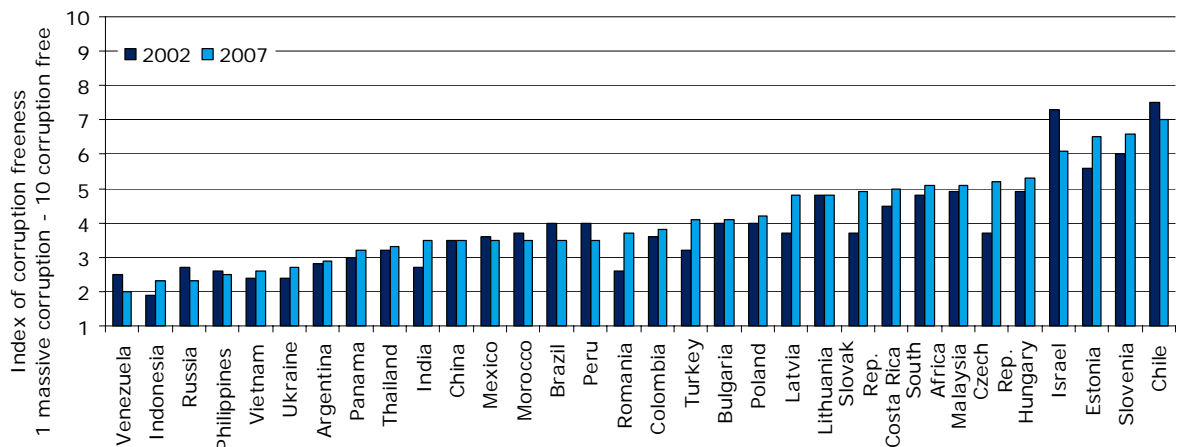


Source: Credit Suisse Global Performance Monitor June 7 2008

One of the contributing factors to the decrease in emerging market country risk is the progress in the global battle against corruption. Overall, the emerging countries improved their scores on transparency by 0.2 points (on a scale of one to ten) over the period 2002 to 2007, according to Transparency International. Seven out of every ten emerging economies showed progress in fighting corruption over the period surveyed in Figure 22. However, the investor must not underrate the presence of corrupt practices in emerging property markets, nor in a number of developed real estate markets such as in Greece, Italy or South Korea. The investor needs to address these issues by paying special attention to background checks of key persons when investing in markets that are prone to corruption. Beyond an actual record of past infractions, unethical conduct or other general indications of poor judgment should alert the investor.

Figure 22 While far from over, the battle against corruption is gaining ground

(Corruption perception index in emerging markets over time)

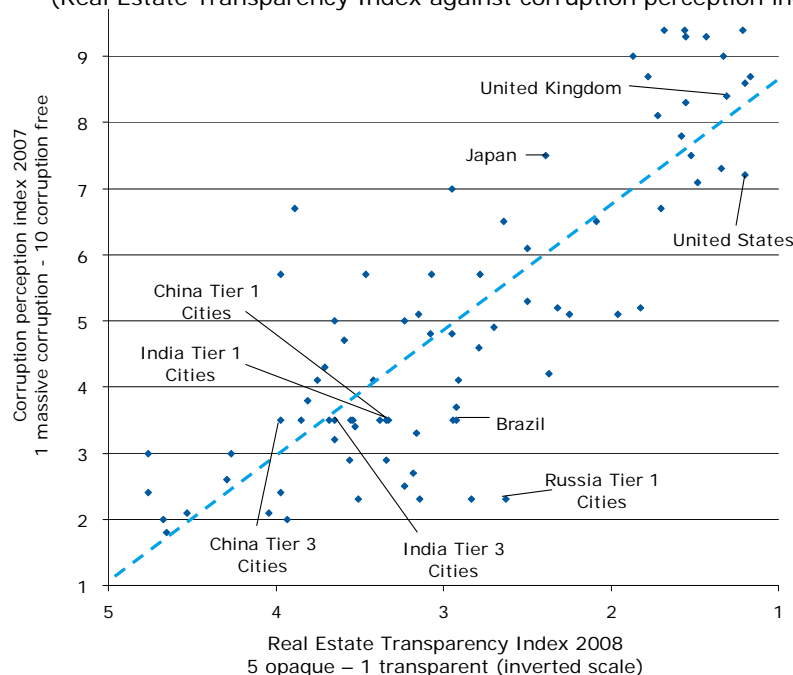


Source: Transparency International

To measure transparency more specifically for emerging property markets, the Real Estate Transparency Index developed by Jones Lang LaSalle looks at the transparency of a market based on five scoring models: (i) performance measurement, (ii) fundamental market data, (iii) listed vehicles, (iv) legal and regulatory environment and (v) transaction process. As illustrated in Figure 23, the level of transparency in property markets appears to relate directly to the quality of the overall legal system of a country, as measured by the standards of Transparency International.

Figure 23 General corruption freeness is indicator for real estate market transparency

(Real Estate Transparency Index against corruption perception index)

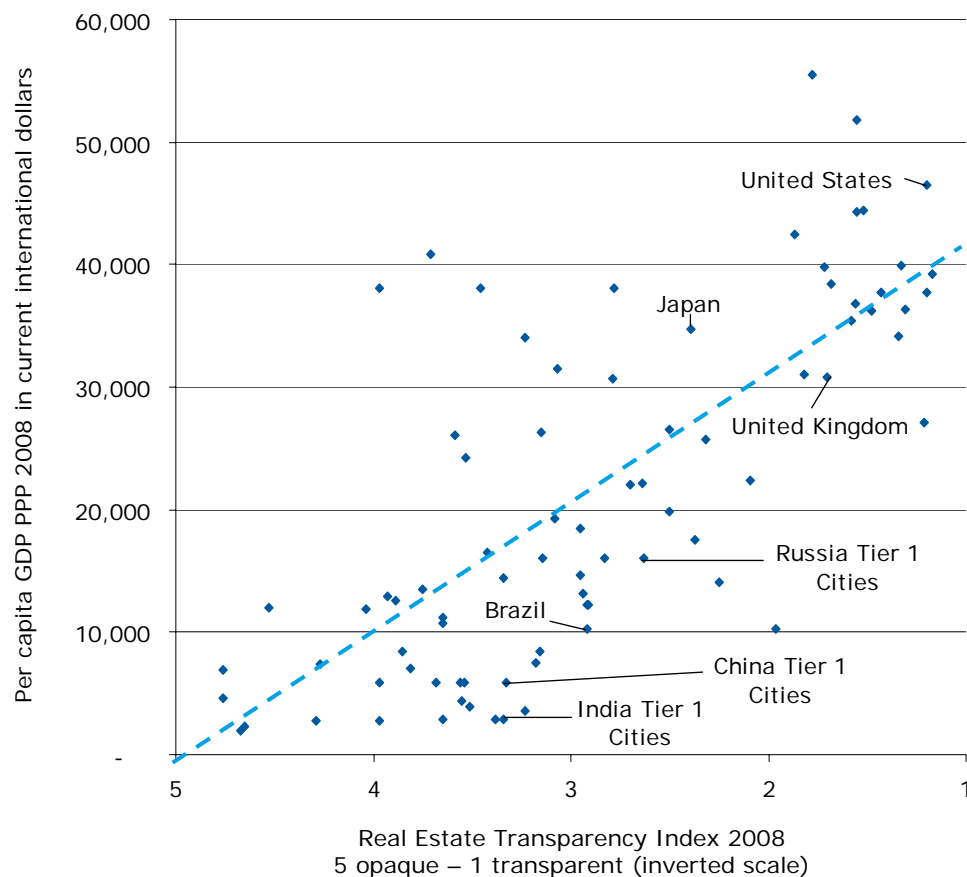


Source: Jones Lang LaSalle Real Estate Transparency Index 2008, Transparency International

In recent years, the transparency of capital markets has been improving at a faster pace than the overall legal and regulatory environment. This outcome may be a result of the globalization of capital flows, with investors seeking diversification and attractive risk adjusted returns outside their national borders. The competition among emerging markets to attract these potential sources of capital has led to significant efforts to comply with the expectations of international institutional investors (across asset classes, including real estate) to meet transparency standards of the investors' home countries. As a result, a majority of markets have materially improved: bureaucratic practices have been streamlined and consolidated at national levels (e.g., in China and India); accounting and reporting practices have benefited from coverage through international data providers (e.g., the International Property Database "IPD" in South Africa and CEE); and there is anecdotal evidence of a general improvement in the willingness of property managers operating in emerging markets to open accounting books to current and potential investors. Figure 24 below shows that gains in transparency seem to be related to growing wealth on a per capita basis.

Figure 24 Transparency and wealth

(Real Estate Transparency Index vs. per capita GDP 2008 measured in purchasing power parity, "PPP" dollars)

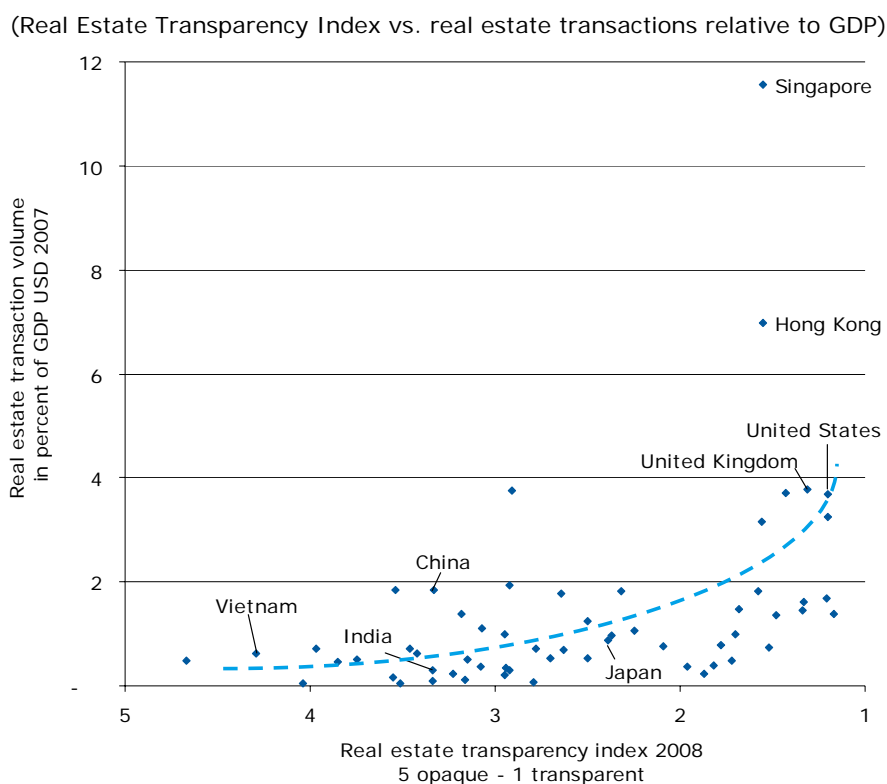


Source: Jones Lang LaSalle Real Estate Transparency Index 2008, IMF World Economic Outlook April 2008

As real estate market sizes are a direct function of per capita GDP, the corollary is that increasing transparency not only leads to growing wealth, but also to growing demand for investable commercial real estate, both in terms of absolute numbers as well as in terms of its share in the consumption basket.

Transparency further helps attract capital. Figure 25 below plots real estate transaction flows against market transparency levels to support this claim.

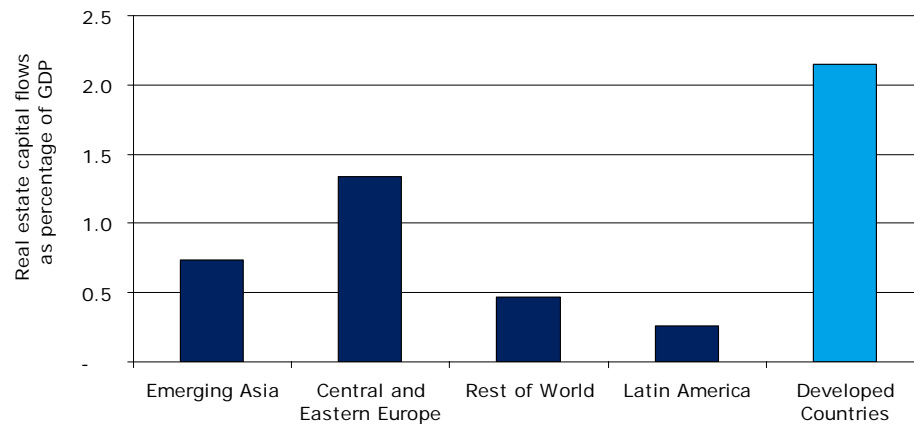
Figure 25 Higher transaction volumes in more transparent real estate markets



Source: RCA Capital, Jones Lang LaSalle Real Estate Transparency Index 2008

Two driving factors can be observed looking at capital flows by region and measuring the size of the inflows into real estate markets in relation to GDP, as Figure 26 denotes. First, due to the lower transparency and to the generally smaller real estate markets in relation to GDP, emerging markets receive systematically less capital inflows per unit of GDP than the developed world. Second, within the emerging markets, capital flows are healthy in the sense that they can be well absorbed by the existing market sizes. In Central and Eastern Europe, however, some markets including the Czech Republic and Hungary experience elevated levels of capital flows relative to the size and transparency of their real estate markets. Russia is an exception with less than half the regional average of real estate transactions relative to GDP, compared to the rest of the region.

Figure 26 Real estate capital flows in relation to GDP by major regions



Source: RCA Capital, IMF World Economic Outlook April 2008. Data as of 2007

Despite decreasing country risks and largely healthy capital flows, the political and legal risks associated with investing in emerging markets should not be underestimated. For instance, in 1998⁷ the Chinese government directly intervened in the housing market freezing state sponsored apartments and permitting state workers to begin buying their own property, using government subsidies or bank loans. Faced with skyrocketing housing prices, driven by growing demand and speculation, the Chinese government then introduced a string of policies to cool off the residential real estate market, including raising the down payments for second houses to 40 percent from 20 percent. The implication for investors in commercial real estate is that the possibility of governmental intervention is real and not readily predictable, creating a level of risk not encountered in developed markets. The worst-case scenario for the investor is expropriation of foreign held property by decree. While the real estate markets of countries that have recently seen expropriations through nationalizations – Venezuela, Bolivia, and Zimbabwe – are negligible in the global context, many of the emerging countries including the BRIC states have governments showing authoritarian behavior.

While not necessarily classified as country risks, inflation risks have historically been higher in emerging than in developed economies. One major explanation for this phenomenon is the easier monetary stance of central banks in emerging economies to support growth. The recent spikes in energy, food and basic materials have lately been further exacerbating the inflationary pressures in the emerging economies where these basic items represent a larger share in the average consumption basket than in higher-income environments.

Leaving aside the effects on currency exchange rates, the Opportunistic real estate investor should be largely hedged against the effects of inflation since local currency returns are not dependent on current income (which is poorly protected against unexpected inflation), but on future exit values which reflect past inflation. This argument has its limitations when inflation is so high that the stability of a country's financial system and possibly even its political

⁷ Journal of the Asian Real Estate Society, Vol. 1 No. 1 1998, "Government intervention and performance of the housing sector in urban China" by Liu Hongyu

stability are at risk, which may paralyze an economy and thus indirectly impair local real estate markets.

However, from the viewpoint of the investor's local currency, inflation *is* a major concern. According to the theory of relative purchasing power parity⁸, the currency of a country with higher inflation will depreciate vis-à-vis the currency of a country with a lower inflation by the inflation differential. While the investor can hedge off this currency risk by entering currency forward contracts, the practical implementation of such a currency hedge typically is not trivial.

First, the investor has to have a clear understanding of the financing of a fund's debt. If financing is obtained in the currency of the country where the property is located, then the investor does not have any currency exposure for the debt portion of the fund since assets and liabilities are both denominated in the same currency and offset each other. The more complex the structuring of the debt of a fund, the more challenging it is to determine its basic currency exposure. Second, the values of a fund's assets can only be estimated until prices are determined at the final sales of its properties such that the investor may find it difficult to assess the size of his exposure even if the impact of the financing structure is well understood. And third, many funds perform some hedging for the appreciation component of returns without necessarily informing investors on all hedging activities in a timely fashion. Ultimately, the investor may find it a challenging task to implement a hedging strategy that achieves the desired currency exposures.

And hedging comes at a cost. If exchange rates stay constant over the lifetime of the hedge, then the hedging's cost will be the difference in interest rates between the fund currency and the investor's local currency. Since interest rates in emerging markets are typically higher than in developed economies, the cost of hedging exchange rate risk may be substantial.

In sum, country risks present in emerging real estate markets translate into higher required returns than those for otherwise comparable investments in the US. The spreads - also known as risk premia - range anywhere between two and ten percent per year. As a general rule of thumb, net projected IRRs in emerging Asia and Latin America should not fall below 20 percent for development projects.

Unfortunately, it is not yet possible to verify if these ex ante return expectations have been achieved to date. Representative numbers on realized returns of Opportunistic real estate investments are not available yet, and there is no industry benchmark. The reason is less the unwillingness of funds to open their books and more the youth of the industry; the majority of class A space in emerging central business districts across the globe was constructed no more than five years ago resulting in a low sample set property management companies with indicative realized performance figures.

⁸ See for instance Kenneth Rogoff, "The Purchasing Power Parity Puzzle,"







9 Investment Opportunities

So far, this paper has laid out the basic top-down factors influencing the performance of real estate markets across the globe. The following pages use these data points to highlight which locations may offer attractive investment returns.

Regional highlights - Latin America

The key figures for the emerging markets of Latin America are summarized in Figure 27.

Figure 27 Key figures Latin America

Data	Unit	Time-frame	 Brazil	 Mexico	 Argentina	 Colombia	 Chile	 Peru
GDP	[bn USD]	2008	1621	950	324	202	170	126
GDP PPP/ GDP USD conversion factor	-	2008	1.2	1.5	1.8	1.7	1.4	1.9
GDP growth	%	2008-12	4.2	3.7	4.1	4.8	5.1	5.9
Inflation	%	2008	4.8	3.8	9.2	5.5	6.6	4.2
Investable real estate market size	[bn USD]	2008	547	326	108	54	61	34
Minimum growth in RE demand	[bn USD]	2008-12	123	64	24	14	17	11
Real estate capital flows	[% of GDP]	2007	0.2	0.3	0.1	n.a.	0.2	0.4
Distribution of wealth score (1 unequal - 5 broad)	-	2007	1	2	1	1	1	1
Population	[million]	2008	192	107	40	48	17	29
Growth urban population	[million]	2010-20	25	11	4	6	2	3
Size of service sector	[% of GDP]	2007	66	70	57	53	44	66










Source: EPRA, IMF, Jones Lang LaSalle, Partners Group, Transparency International, United Nations

According to above data points, Brazil and Mexico seem the most attractive countries within the region. The growing spending power of expanding urban populations should support demand and ultimately returns for real estate. The growth rates in sales of electronics, IT goods and automobiles, which averaged around 20 percent per annum over the past years, illustrate the growth in disposable income for broader shares of the Brazilian and Mexican populations. Despite the slowdown in the global economy, both countries are in line to profit from the US Dollar weakness through increased demand for supplier services for the US export sector and rising commodity prices. The urbanization trend is similarly strong. By 2020, Brazil and Mexico will see growth in urban populations by more than the current number of inhabitants of the megalopolis Mexico City.

Due to these trends, the real estate transaction values of the area are expected to increase, benefiting early investors. The reasons for the moderate flows of the recent past are twofold: on the one hand, global investment activity in emerging markets was dominated by emerging Asia, with generally low levels of risk aversion making such concentrated allocations possible; and on the other hand, the private real estate market in Latin America was, and partly still is, in its infancy and investment opportunities through established developers with longstanding track records are scarce.

Regional highlights - emerging Asia

Figure 28 Key figures emerging Asia

Data	Unit	Time-frame	China	India	Korea	Indonesia	Taiwan	Thailand	Malaysia	Philippines	Pakistan
											
GDP	[bn USD]	2008	3942	1233	999	488	409	272	208	173	160
GDP PPP/ GDP USD conversion factor	-	2008	2.0	2.7	1.3	1.9	1.8	2.0	1.8	1.9	2.8
GDP growth	%	2008-12	9.8	8.0	4.5	6.5	4.4	5.8	5.6	6.0	6.7
Inflation	%	2008	5.9	5.2	3.4	7.1	1.5	3.5	2.4	4.4	8.5
Investable real estate market size	[bn USD]	2008	939	210	454	104	176	72	68	36	27
Minimum growth in RE demand	[bn USD]	2008-12	550	97	112	38	42	23	21	12	10
Real estate capital flows	[% of GDP]	2007	1.5	0.3	0.5	0.0	1.0	0.1	1.0	0.2	n.a.
Distribution of wealth score (1 unequal - 5 broad)	-	2007	2	3	4	4	n.a.	2	2	2	4
Population	[million]	2008	1328	1140	49	228	23	66	27	90	161
Growth urban population	[million]	2010-20	149	106	2	35	149	4	5	17	25
Size of service sector	[% of GDP]	2007	40	53	58	39	71	45	45	55	54

Source: EPRA, IMF, Jones Lang LaSalle, Partners Group, Transparency International, United Nations





According to the key figures presented above in Figure 28, China and India appear to be the most attractive real estate markets, regionally and globally. Vibrant growth is projected to hold up despite the slowing US economy and despite reduced growth expectation for Europe and Japan. The increasing national income is broadly disseminated across the population, resulting in shifts in the national consumption baskets towards more advanced goods including electronics, telecommunication, insurance - and commercial real estate. Further tailwinds come from demographic momentum through population growth (e.g. India), and even more from urbanization trends which over the next decade look likely to result in a combined growth of the urban populations of both China and India that is comparable in size to the current total population of the United States. Lastly, legislators have been active in improving the legal and regulatory investment environment such that continued high return expectations come at decreasing risks relative to prior years.

While some investors are concerned with the real estate capital flows into the region the vigorous growth of the overall economies – and faster growing real estate markets within them - appear to be justifying continued investor interest.

Regional highlights - Central and Eastern Europe (CEE)

Figure 29 gives an overview of the key top-down parameters for the emerging markets of Central and Eastern Europe.

Figure 29 Key figures Central and Eastern Europe

Data	Unit	Time-frame	 <i>Russia</i>	 <i>Poland</i>	 <i>Czech Rep.</i>	 <i>Hungary</i>
GDP	[bn USD]	2008	1699	451	212	155
GDP PPP/ GDP USD conversion factor	-	2008	1.3	1.5	1.3	1.3
GDP growth	%	2008-12	6.2	4.8	4.2	3.1
Inflation	%	2008	11.4	4.1	6.0	5.9
Investable real estate market size	[bn USD]	2008	645	170	96	64
Minimum growth in RE demand	[bn USD]	2008-12	228	45	22	11
Real estate capital flows	[% of GDP]	2007	0.5	0.9	1.5	1.1
Distribution of wealth score (1 unequal - 5 broad)	-	2007	3	4	5	5
Population	[million]	2008	141	38	10	10
Growth urban population	[million]	2010-20	-4	0	0	0
Size of service sector	[% of GDP]	2007	56	64	59	66





Source: EPRA, IMF, Jones Lang LaSalle, Partners Group, Transparency International, United Nations

Measured as percentage of GDP, capital flows into real estate in the CEE – with the exception of Russia - in some parts exceed flows into the more vibrant Asian economies. These capital flows appear elevated. While GDP growth is healthy, it is lower than growth in China and India. Moreover, unlike in Asia, the CEE experienced its wave of rapid urbanization in the 20th century; demographic trends are therefore unlikely to further enhance the demand for commercial real estate. Russia appears to be the most attractive market as the macroeconomic growth is strong, the structural shift towards a strong service industry is just beginning and capital flows are still in line with current market capacity.

In general, investment opportunities in areas that benefit from local growth and local structural improvements appear attractive. Examples are developments in proximity to the new infrastructure projects in and around Russian cities, as well as redevelopments in central business district locations.

Regional highlights – Rest of world

Figure 30 Key figures rest of world

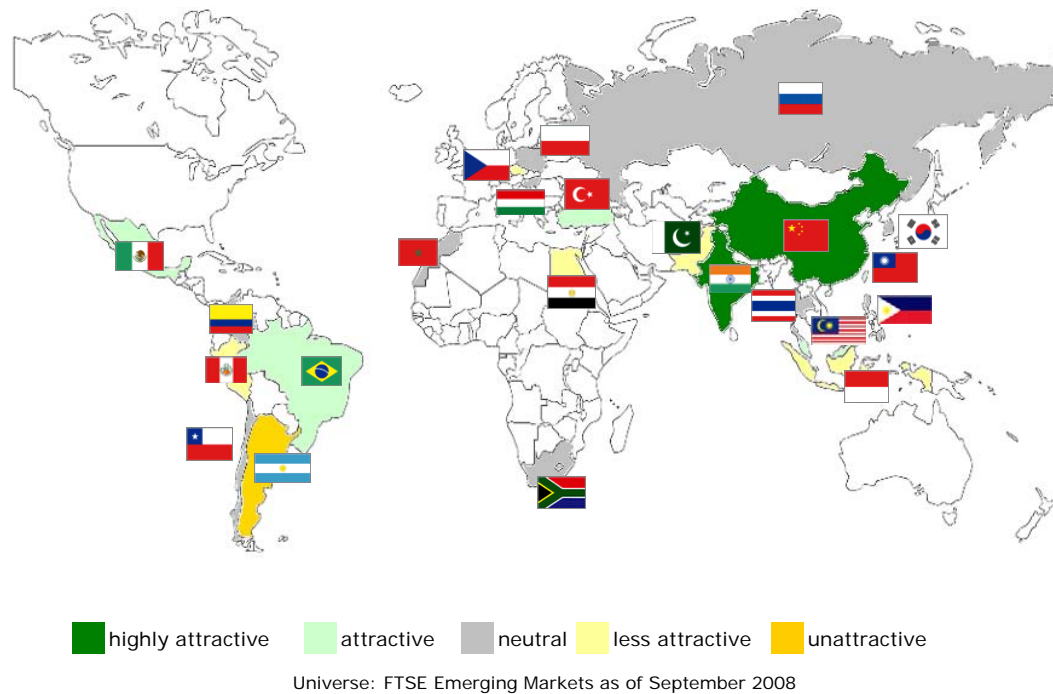
Data	Unit	Time-frame	Turkey	Egypt	South Africa	Morocco
						
GDP	[bn USD]	2008	748	151	296	84
GDP PPP/ GDP USD conversion factor	-	2008	1.3	2.9	1.7	1.6
GDP growth	%	2008-12	4.6	7.2	4.4	5.9
Inflation	%	2008	7.5	8.8	8.7	2.0
Investable real estate market size	[bn USD]	2008	274	32	90	20
Minimum growth in RE demand	[bn USD]	2008-12	68	13	21	6
Real estate capital flows	[% of GDP]	2007	0.4	n.a.	0.3	0.1
Distribution of wealth score (1 unequal - 5 broad)	-	2007	2	4	1	3
Population	[million]	2008	70	75	48	31
Growth urban population	[million]	2010-20	10	8	4	4
Size of service sector	[% of GDP]	2007	63%	45%	66%	48%

Source: EPRA, IMF, Jones Lang LaSalle, Partners Group, Transparency International, United Nations

According to Figure 30 above, Turkey exhibits appealing fundamentals within the countries summarized under the label “rest of world”. The legal and structural improvements, which were achieved in the efforts to join the European Union, represent advancements for the real estate investor. Increasing monetary discipline supports continued growth and financial stability. Civil rights have partly been strengthened, leading to decreasing political risk. The education system has been improved, which will likely support a broader dissemination of income across a growing middle class. These improvements, coupled with both noteworthy urbanization trends and moderate capital flows, could support an attractive risk return profile for the Turkish market.

Figure 31 on the following page summarizes all findings graphically across the globe.

Figure 31 Relative attractiveness of emerging market real estate investment opportunities



In conclusion, the case for emerging market real estate is based on

- Expected **outperformance** relative to the developed real estate market returns due to higher GDP growth, growing middle classes, urbanization trends and shifts towards manufacturing and service industries.
- **Compelling diversification benefits** vis-à-vis Core and developed market real estate, stocks and bonds.

Ultimately, the successful implementation of a real estate investment approach which includes emerging markets will depend on manager selection and careful asset allocation by country, both of which have the potential to add value for the real estate investor.